ВОЕННЫЙ ПАРИТЕТ

03 March 2016

3. NUCLEAR AVIATION BOMBS

NUCLEAR AVIATION BOMBS

KB	Factory designation or GRAU index	Military designation	Caliber, kg (power)	Year of adoption	Carrier (note)
KB-11 (RFNC-VNIIEF, Arzamas)	"product 501"	RDS-1 RDS-1	22 kt	1949	The first Soviet nuclear (plutonium) bomb with spherical compression. Start of development –1946. Tested (exploded on a tower) on 29.08.49 at the Semipalatinsk Test Site (STS) No. 2 of the USSR Ministry of Defense. Weight of the AB is 4.7 tons, diameter is1.5 m Small series with1951. at plant No. 551 (5 pieces)
KB-11		RDS-2	38 kt		Uranium bomb (copy of the American one, with gun approach) based on U -235. Start of development –1946. Tested (exploded on a tower) 09.24.51 at SIP No. 2 of the USSR Ministry of Defense. Diameter –1.7 m
KB-11		RDS-3 ("Maria")	42 kt	1951	Tu-4. An atomic bomb based on the principle of implosion of a "solid" design using a combination of Pu -239 and U -235 materials. Tested (dropped from a height of10 kmand blown up at altitude400 m) 10.18.51 at SIP No. 2 USSR Ministry of Defense
KB-11	"product T"	"Tatiana"			
KB-11	8U69, "product 244N"	RDS-4 ("Tatiana") RDS-4M	28-42 kt	1953	Il-28. Implosion-type tactical atomic bomb of improved design using Pu -239. Tested on 23.08.1953 (dropped from a height of11 kmand blown up at altitude600 m) at SIP No. 2 USSR Ministry of Defense. AB weight –1200 kg Less power
KB-11		RDS-5			An improved design of an implosion atomic bomb using a combination of Pu -239 and U -235 materials
KB-11	"product 6"	RDS-6s RDS-6t RDS-6sD	400 kt	1953 -	The first Soviet thermonuclear (hydrogen, single-stage) bomb of layered configuration. Start of development – 1948. Tested (in stationary conditions) on 12.08.53 at SIP No. 2 of the USSR Ministry of Defense. According to other data, the charge power is 400 kt. Similar to the American project Super . Not implemented. Increased power
KB-11	"product B"				Weight 3 t, for YES aircraft
KB-11		RDS-27	250 kt		Improved RDS-6s. Tested (dropped) 6.11.1955
	"product 37d"	RDS-37 ("Ivan")	1.6 Mt 2.9 Mt		Tu-95, 3M, M-4. Two-stage bomb on the principle of radiation implosion. Tested (dropped) on 22.11.55 at SIP No. 2 of the USSR Ministry of Defense. Weight – 3 tons Improved. Tested 6.10.57
KB-11	8U-49	("Natasha")		1956	The first Soviet tactical atomic bomb, Yak-26 and Su-7B
KB-11	8U-57				Tactical atomic bomb
KB-11	8U-63				Tactical atomic bomb
	8U-64	RN-40	30 kt		Light nuclear bomb. Yak-38, MiG-23. Weight –250 kg
KB-11	8U-69		5 kt	1961	Su-7B. Tactical nuclear bomb. Length –3365 mm, diameter –580 mm, the span of the stabilizers is726 mm. Weight -480 kg
Research Institute-1011	"product 202" ("product B")	RN-202 ("Ivan")	50 Mt	-	Tu-95V. High-power hydrogen bomb (prototype of 100-Mt bomb). Tested (dropped) on 10/30/61 at Novaya Zemlya Test Site No. 6. at half power. Weight of AB – 26 tons
KB-11	A-620EN		100 Mt	1959	Tu-95V. Not tested.
			20 MT		Tu-95V. Tested (dropped) in1962. at the Novaya Zemlya test site No. 6. Made in the body of the bomb "edition 202"
		RN-25			
		RN-28			Light nuclear bomb. Yak-38. Weight –250 kg
		RN-29			
		RN-30	200 kt	50's	
		RN-32	200 kt	50's	
		RN-35			
		RN-41			Light nuclear bomb. Yak-38. Weight –250 kg
		RN-42			
Research Institute-1011 (VNIITF, Snezhinsk)	5F-48	SK-1 "Scalp"	Approx. 10 ct	1964	Be-10, Be-12SK. Nuclear depth charge. Weight1600 kg, the radius of destruction of the submarine is800 m, depth -500 m
VNIITF		"Skat"			Nuclear depth charge
VNIITF		RYU-2			Nuclear depth charge
	8F59				Nuclear depth charge
		TN-1000			Su-24
		TN-1200			Su-24

The city of Arzamas at various times had the names "Object-550", "Base-112", "Privolzhskaya office of Glavgosstroy", "Yasnogorsk", "Kremlev", "Arzamas-75", "Arzamas-16", now the city of Sarov.

In addition to the federal nuclear centers VNIIEF and VNIITF, the nuclear weapons complex of Russia includes three research institutes: the All-Russian Research Institute of Automation (VNIIA, Moscow), the Research Institute of Measuring Systems (NIIIS, Nizhny Novgorod), and the Research Institute of Pulse Technology (NIIIT, Moscow), as well as the Design Bureau of Automobile Equipment (KB ATO, Mytishchi, Moscow Region). Research and development work is organized by the Department of Development and Testing of Nuclear Weapons of the Russian Ministry of Atomic Energy (Minatom of Russia).

Currently, the nuclear weapons complex of Russia includes 4 plants for the serial production of nuclear weapons: the Avangard electromechanical plant (Sarov,2004. must be re-profiled), Elektrokhimpribor (Sverdlovsk-45), Start (plant No. 592, Penza or Zlatoust-36) and Mayak (Chelyabinsk-40), as well as two enterprises for the production of plutonium and uranium components (Krasnoyarsk-26, Tomsk-7). In Soviet times, the production of weapons-grade plutonium was carried out at the Mayak chemical plant (plant No. 817, Chelyabinsk-40, now the city of Ozersk) - 5 reactors (a total of1948. there were 10 industrial reactors in operation: "A", "IR-AI", "AV-1", "AV-2", AV-3, OK-180, OK-190, OK-190M, "Ruslan", "Lyudmila"), the Siberian Chemical Combine (combine No. 816, Tomsk-7, now Seversk) - 2 reactors (a total of 5 industrial reactors were built: I-1, EI-2, ADE-3, ADE-4, ADE-4) and the Krasnoyarsk Mining and Chemical Combine (combine No. 815, Atomgrad, Krasnoyarsk-26, now Zheleznogorsk) - 3 reactors (AD, ADE-1 and ADE-2). There were also four uranium enrichment plants: in Angarsk (plant no. 820, now the Angarsk Electrolysis Chemical Plant), Krasnoyarsk-45 (plant no. 825, now the Krasnoyarsk Electrochemical Plant, now Zelenogorsk) and Yekaterinburg (plant no. 813, now the Ural Electrochemical Plant, Sverdlovsk-44, now Novouralsk). Uranium raw materials were mined at the Caspian Mining and Chemical Plant no. 1 (Shevchenko, Mangyshlak Peninsula in Western Kazakhstan), the Priargunsky Mining and Chemical Plant (Krasnokamensk, Chita Region), the Zabaikalsky Mining and Processing Plant and Plant no. 9 in Zheltye Vody (Eastern Mining and Processing Plant, near Krivoy Rog, Ukraine).

Tests (with a conventional warhead) of the "Scalp" depth charge were conducted at the 71st Air Force testing ground in Crimea: in shallow waters - Cape Chauda, in deep waters - Cape Meganom.

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- 03.03 U-2. It only gets better with age
- 03.03 A330MRTT stuck, Il-78M-90A appeared on the horizon
- 03.03 Malaysia to arm itself with Paladins
- 03.03 Kuwaiti Typhoons with Active Phased Array
- 02.03 J-20 with the "diamond eye" of the F-35 - PHOTO
- 02.03 MZKT-6922 unloaded in Myanmar
- 02.03 Afghan Super Tucanos Ready for Combat
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- 29.02 "Mistrals" do not let you get bored
- 29.02 Almost according to Gogol. The cruiser lost its nose
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- 28.02 Saudi F-15s in Turkey
- 27.02 US to repair Jordanian F-16

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- 27.02 "Reaper" with a long wing
- 26.02 "Punisher" for Putin
- 26.02 B-21. Bomber of the 21st century
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- 03.03 Ospreys over Hollywood - PHOTO

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- 02.03 Hypersonic. "Shame!" - the X-15 pilot would say
- 02.03 F-35s will fly into battle in formations
- 01.03 F-35. Opponents will be surprised by meeting with the "bomber"
- 01.03 Turkey to receive American UABs
- 01.03 Croatia approved Kiowa Warrior
- 29.02 Y-20 – mythical bird or plump girl?
- 29.02 B-21. Forget those numbers – “80-100” – US Air Force General
- 29.02 FGFA. Indian pilots await agreement
- 28.02 Vietnamese "Cheetahs" with German diesel engines?
- 28.02 "Ansats" for Iran
- 27.02 First appearances of the F-22 and B-21 to the world
- 27.02 "Caesar" gained operational readiness
- 26.02 Tejas with Cobham fairing flew
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- 26.02 SACM. Cheap and cheerful
- 26.02 Switzerland. Fighter selection again
- 26.02 200th EOTS for F-35
- 25.02 Polish M-346 to take off in May
- 25.02 Il-96. Doomsday Plane
- 25.02 LRASM. As soon as possible
- 25.02 Saudi Arabia is no longer a "money bag"
- 25.02 German laser weapon
- 24.02 "Bastions" replace "Redoubts" and "Frontiers"
- 24.02 Polish "Leopards" will be brought up to level A5/6
- 23.02 "Solntsepek" in Iraq
- 22.02 MGCS – replacement of “Leopards” and “Leclercs”
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